

CLAIMS

1. An isolated nucleic acid molecule comprising a sequence of nucleotides encoding or complementary to a sequence encoding the amino acid sequence set forth in SEQ ID NO:5 or SEQ ID NO:6 or amino acid sequence having at least about 40% similarity to SEQ ID NO:5 or SEQ ID NO:6 after optimal alignment.
2. The isolated nucleic acid molecule of Claim 1 wherein the nucleotide sequence encodes the amino acid sequence set forth in SEQ ID NO:5.
3. The isolated nucleic acid molecule of Claim 1 wherein the nucleotide sequence encodes the amino acid sequence set forth in SEQ ID NO:6.
4. The isolated nucleic acid molecule of Claim 1 or 2 or 3 comprising a nucleotide sequence set forth in SEQ ID NO:4 or a nucleotide sequence having at least about 40% similarity to SEQ ID NO:4 after optimal alignment or a nucleotide sequence capable of hybridizing to SEQ ID NO:4 or its complementary form under low stringency conditions.
5. The isolated nucleic acid molecule of Claim 1 wherein the nucleic acid is of mammalian, insect, reptilian, fish, avian, arachnid, yeast or *C. elegans* origin.
6. The isolated nucleic acid molecule of Claim 5 wherein the nucleic acid is of mammalian origin.
7. The isolated nucleic acid molecule of Claim 5 wherein the nucleic acid is of human origin.
8. The nucleic acid molecule of Claim 7 wherein the nucleic acid molecule is from human breast carcinoma cell line SKBR3 as defined in ATCC Catalog No. HTB30.

9. The nucleic acid molecule of Claim 1 wherein the nucleic acid is a geromic molecule.

10. The nucleic acid molecule of Claim 1 wherein the nucleic acid is a cDNA molecule.

11. An isolated nucleic acid molecule comprising a nucleotide sequence 5' of the geromic equivalent of SEQ ID NO:4 and comprising a promoter or a functional part thereof.

12. An isolated nucleic acid molecule comprising a heterologous promoter operably linked to SEQ ID NO:4.

13. An isolated vector comprising SEQ ID NO:4 or a homolog thereof.

14. The isolated vector of Claim 13 wherein SEQ ID NO:4 or its homolog is operably linked to a promoter.

15. An antisense molecule to SEQ ID NO:4 or its homolog.

16. An expression product of StarD10, said expression product selected from the list comprising:-

(i) an amino acid sequence set forth in SEQ ID NO:5 or an amino acid sequence having at least 40% similarity to SEQ ID NO:5 after optimal alignment;

(ii) an amino acid sequence set forth in SEQ ID NO:5;

(iii) an amino acid sequence set forth in SEQ ID NO:6 or an amino acid sequence having at least 40% similarity to SEQ ID NO:6 after optimal alignment;

(iv) an amino acid sequence set forth in SEQ ID NO:6;

- (v) a ribonucleotide sequence corresponding to SEQ ID NO:4 or a nucleotide sequence having at least about 40% similarity to SEQ ID NO:4 after optimal alignment or a nucleotide sequence capable of hybridizing to SEQ ID NO:4 or its complementary form under low stringency conditions; and
- (vi) a ribonucleotide sequence corresponding to SEQ ID NO:4.

17. The expression product of Claim 17 wherein the product is a protein.
18. The expression product of Claim 17 forming the amino acid sequence setforth in SEQ ID NO:5 or a homolog, antibody or derivative thereof.
19. The expression product of Claim 18 forming the amino acid sequence setforth in SEQ ID NO:5.
20. The expression product of Claim 17 forming the amino acid sequence setforth in SEQ ID NO:6 or a homolog, antibody or derivative thereof.
21. The expression product of Claim 17 forming the amino acid sequence setforth in SEQ ID NO:6.
22. An isolated antibody to the protein of Claim 17 or 18 or 19 or 20 or 21.
23. The isolated antibody of Claim 22 wherein the antibody is a monoclonal antibody.
24. A method for detecting StarD10 in a biological sample from a subject, said method comprising contacting said biological sample with an antibody specific for StarD10 or its derivatives or homologs for a time and under conditions sufficient for an antibody-StarD10 complex to form, and then detecting said complex.
25. A method for detecting an aberrant cell in a subject or in a biological sample from said subject, said method comprising contacting cells or cell extracts from said subject or said biological sample with an immunointeractive molecule specific for StarD10 or an

antigenic portion thereof and screening for the level of immunointeractive molecule-StarD10 complex formations wherein an elevated presence of said complex relative to a normal cell is indicative of an aberrant cell.

26. A method for detecting an aberrant cell in a subject or in a biological sample from said subject, said method comprising screening the level of an expression product of a gene encoding a StarD10, wherein an elevated level of said expression product compared to a normal cell is indicative of an aberrant cell.

27. The method of Claim 24 or 25 or 26 wherein the sample is a biopsy comprising cells, cell extract, tissue, tissue fluid, excretia, circulatory fluid or respiratory fluid or other material.

28. A method for diagnosing the presence of cancer or cancer-like growth in a subject, said method comprising contacting cells or cell extracts from said subject or a biological sample from said subject with a StarD10-binding effective amount of an antibody having specificity for said StarD10 or an antigenic determinant or epitope thereon and then quantitatively or qualitatively determining the level of a StarD10-antibody complex wherein the presence of elevated levels of said complex compared to a normal cell is indicative of the presence of a cancer.

29. A method for diagnosing the presence of a cancer in a subject, said method comprising obtaining mRNA from cells of said subject or from a biological sample from said subject and optionally generating cDNA and contacting said mRNA or cDNA with a genetic probe capable of hybridizing to and/or amplifying all or part of a StarD10 nucleotide sequence encoding StarD10 or its complementary nucleotide sequence and then detecting the level of said mRNA or cDNA wherein the presence of elevated levels of said mRNA or cDNA compared to normal controls is indicative of the presence of cancer.

30. A method for the treatment of a patient having cancer, said method comprising administering to said human, a cancer cell growth inhibiting-effective amount of an antibody having specificity for human StarD10 protein, wherein said antibody is

substantially non-immunogenic and further comprises a cell growth inhibiting or cell killing agent fused, bound or otherwise associated thereto.

31. A method for the treatment of a patient having cancer, said method comprising administering to said patient, a genetic composition comprising a genetic construct which down-regulates expression of a StarD10 gene encoding StarD10.

32. A method for the treatment of a patient having cancer, said method comprising administering to said patient, a genetic composition comprising a genetic construct comprising a nucleotide sequence substantially as set forth in SEQ ID NO:4 or a fragment thereof or a nucleotide sequence having at least about 40% similarity to SEQ ID NO:4 after optimal alignment or a nucleotide sequence capable of hybridizing to SEQ ID NO:4 its complementary form under low stringency conditions.